Pocket Notebook
PN-73-00-00.3

This undated pocket notebook is one of three books that Edison took with him to England in the spring of 1873. The entries deal primarily with proposed experiments on cable and automatic telegraphs, which Edison planned to try upon his return to the United States. The cover is missing and several pages appear to have been removed from the book. Some of the loose pages in this book were inadvertently filmed as part of PN-73-00-00.1 (Part I, reel 6). The latter book has been re-filmed immediately following PN-73-00-00.3.

American Cable Experiments

First = Transmitter & Recer
The transmitter to go by
Electric Eng. Worm on nice
Rosewood base on hard
rubber pillars.

Receiver - ditto base. to
take narrow paper less than
quarter inch. to have great
surface on drum to reduce
resistance to have. Convenient
slide for different pens,
to have English binders

plugs etc to get any
desired connection

The paper to be drawn forward
by steel tooth wheels nickled
so that small pressure is
required
Two nice boxes with
handles, drawers in base for
spare pens reputt pens etc =

Wheatstone punches
all new =

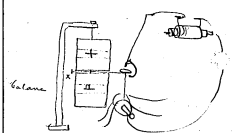
Apply a small condenser to Each printer in a circuit of Tuning instruments to stop spark, also to all relays in W.U. to Universals to stop spark and make them act quick,

Make Model—no=

Attend to Quantizing Automatic batteries, and Shunts attended to,

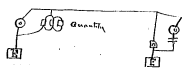
[43]

Sensitive Recording Galvanometer



Aluminum pointer with disk over Iron paper jump spark = 020m. in tube etc.

[47]



Connect a. Relay spool opposite so that the magnet will pull nothing see if there is any charge and if it is not in the opposite direction to that when Connected properly.

Test the difference in the amount of the discharge from a magnet with the armature off and the armature on,

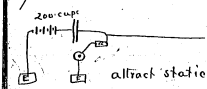
[5]

Test the length of the discharge on a fine wire spool & Coarse ditto with same battery

Test quantilizing a number of very fine wire spools with seperate Cores. Then all on one Core,

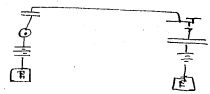
Test iron wire spools & magnets,

Magnetic shunt of high Res & use low battery power,

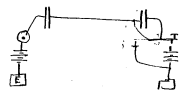


attract static

[6]



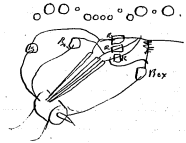
attraction of currents



Magnetic Res with adjustble Cores to vary discharge.

[1]

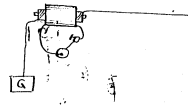
Cable Perforations



[2]

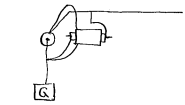
[1-2]

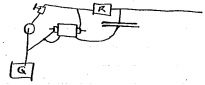
[1-3]

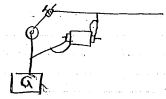


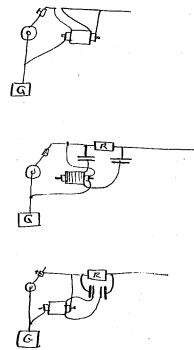
Experement on the thinnesh & thickesh paper for reduction of R. & sensativenes

Organic & Inorganic colors paper bleached by ozone from pen.









[13]

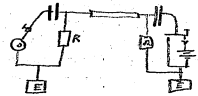
instrument can be made to work. possibly several local cells added to recd paper n would allow n wave to preponderate. this would give the required instrument.

Test the efficacy of glass tubes filled tightly with flour & gas retort carbon. for dorotant w[illegible] resistance & high use heavy glass tubes with $\frac{1}{16}$ or $\frac{1}{32}$ bore. & platinum terminals - & well sealed with hard rubber & gutta P. Have Dr B measure them & have a box of

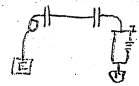
[14]

1 million ohms made of 50000 ohms each & one of 100,000 of 2000 ohms each, with plugs Pol Mohog.

Try this



Varleys bring this way



[15]

obtain some metal that will not decompose iodide, then attach it to platina pen to reduce resistance

See through 500,000 ohms with 3 cups of battery if anything can be put into the iodide, that will reduce its resistance or improve its delicacy

Try and see which two cups of battery Or Grove will give the mark the quickest

[16]

It may be that signals could be given by 20 cup Grove & spaces by twenty cup Daniels both P to line,

Secondary batteries have the advantage over a Condr that they send a longer current. have six large ones made of lead. test. line, or shunt

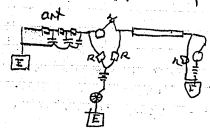
have a magnet made thus of 50 foot in length wound with one layer of 36 silk cov wire total length thus

[17]

back and forth can put in a nice box

test line iron wire bundle cores in compensating magnets. also in the secondary coil compensatn

Keeping the cable statically charged



[18]

Have a clockwork or Magnetic engine vibrator made with break wheel thus.

Double crown platinum so single or P & N can be sent.

with brush to keep clean

Make a Condenser of 1/2 inch strip 1/2 mile long connected thus

(19)

Lms (Telegraph) (1873?)

ano =

Arrange one or more Condensers connected to Earth with delicate revolving armature Engine having high resistance spools so that the Condrs will be discharged ~~from~~ through the engine & give a constant rotation

Small magneto - no perm Gramme Compound Int prin applied wh were so seperate in a rack Coal Chpr than Zinc

(20)

Ascertain if some magnetic arrangement could be made to attach to every knot or 10 K of a cable which should counter equal the electrostatic capacity of that number of knots, if they are constant. & increase & decrease with each other in the same proportion

Disks. Vulcanite faced $\frac{1}{8}$ circle zinc other $\frac{1}{8} - \frac{1}{8}$ C each equal to zinc. revolve rapidly very close together, contact C with one side gal paper Z with other side. get indication